REMARKS

The application has been reviewed in light of the Office Action dated July 28, 2004. Claims 1-9 are pending in this application, with claims 1, 3, 5, 7, 8, and 9 being in independent form. By the present Amendment, claims 1, 3-5, and 7-9 have been amended. It is submitted that no new matter has been introduced by the present Amendment.

Claims 1, 3 and 9 were rejected under 35 U.S.C. 112, first paragraph, as being based on a disclosure that is allegedly not enabling. Specifically, the Office Action maintains that the specification does not specify that a keyword registry/repository is built dynamically and does not specify how the keyword registry/repository is built dynamically. The Applicants respectfully disagree.

As noted in the Office Action, the specification, at page 4, last paragraph, states as follows:

> In the present invention, a mechanism for dynamically registering new macro commands in a registry is also provided for allowing extensibility. To register new macro commands, the users may insert keywords representing the new macro commands and the associated codes or procedures in the registry for execution by the extensible macro language.

The specification, at page 5, lines 20-23 states that "The registry of keywords may be augmented to include any keywords and associated codes for extending the macro language." Said augmentation of the registry of keywords would be understood by one skilled in the art to occur dynamically because it is a part of registering new macro commands in a registry and the registering of new macro commands in a registry is disclosed to occur dynamically, as reiterated above. This dynamic augmentation of the registry of keywords is an example of how the keyword registry or repository is built dynamically.

Moreover, page 8, lines 12-16 of the specification states that "The repository 112 includes one or more keywords and associated codes, and may be dynamically modified, e.g., new keywords and codes added to it as need arises by a user of the macro language." Thus, the keyword repository is dynamically modified and an example of how this dynamic modification may occur is provided. This dynamic modification of the registry of keywords is another example of how the keyword registry or repository is built dynamically.

Claims 1, 3, 5, 7 and 9 were rejected under 35 U.S.C. 112, second paragraph, as

purportedly indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claims 1, 5 and 7-9 were objected to as purportedly having informalities.

By this Amendment, the claims have been amended to place them in better form for examination.

The Office Action states that Claim 1 fails to specify whether a computer program or a person is "analyzing a macro language expression." Applicants maintain that the claim (and claim term) is sufficiently definite, since the Examiner readily understood that said analyzing can be performed by a computer program or a person. The real issue is whether Claim 1 having such a breadth impinges upon the prior art.

MPEP 2173.04, states that "[b]readth of a claim is not to be equated with indefiniteness. *In re Miller*, 441 F.2d 689, 169 USPQ 597 (CCPA 1971). If the scope of the subject matter embraced by the claims is clear, and if applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. 112, second paragraph."

The specification is objected to for various reasons.

By this Amendment, the specification has been amended with particular attention to the issues raised in the Office Action.

The Office Action states that the specification references Figure 1, element 106 as a "macro language expression" while the drawing references element 106 as "{PROPERTY (NAME) LIKES PIZZA}". However, it is respectfully submitted that these references are not inconsistent. The specification explains that "{PROPERTY (NAME) LIKES PIZZA}" is an example of a macro language expression. For example, see page 9, lines 16-20: "Thus, in the example shown in Figure 1, the output of the code associated with the 'property' with the parameter 'name' may be MARY. Consequently, the result of the extended macro expression '{property (name)} likes pizza' at 106 is 'Mary likes pizza' as shown at 116."

The Office Action states that Figure 2, elements 204 and 114 are referenced in Figure 2 but are allegedly not mentioned in the specification. The specification at page 15, lines 12-17, refers to element 204 with respect to Figure 2. Namely, "The dose for 'ForEach' macro, for example, may include instructions to perform commands found within the begin/end block of the macro expression for all sub-objects 204b, 204c in a given object 204 having the type of

the specified parameter 'employee'."

Similarly, element 114 is referred to in the specification, with respect to Figure 1 (*see* page 9, line 10; page 9, line 12). It is pointed out that element 114 appearing on Figure 2 is the same as element 114 appearing on Figure 1. Applicants are not aware of any requirement that an element must be described multiple times when that element appears in multiple figures. The Office Action cites MPEP § 608.01(b), which is entitled "Abstract of the Disclosure." However the Applicants do not understand how this section relates to this issue. Clarification is requested.

The Office Action objected to the Abstract as improperly titled.

By this Amendment, the Abstract has been amended to correct this informality.

Claims 1-9 were rejected under 35 U.S.C. §103(a) as allegedly anticipated by Aho et. al., Compilers Principles, Techniques and Tools (Addison-Wesley 1986), in view of Hyde, "White Paper: Creating Applications with the Web Hub VCL," (1985) pp. 1-19, in view of U.S. Patent No. 5,295,059 to Brooks et al. and further in view of U.S. Patent No. 5,742,828 to Canady et al.

Applicants have carefully considered the Examiner's comments and the cited art, and respectfully submit that independent claims 1, 3, 5, 7, 8 and 9 are patentably distinct from the cited art, for at least the following reasons.

This application relates to an extensible macro language. A macro is a set of commands that can be played back to perform given tasks, for example, within the confines of a specific application. Typically, a user can create a macro using a defined macro language. However, conventionally, macro languages are limited to a set of hard-coded commands or instructions. If a new set of commands or instructions is to be added, the source code must be modified and recompiled. Thus, the user is limited when using a conventional macro language to create new macros.

Applicants devised extensible macro language tools which do not have this drawback.

For example, Claim 1 is directed to a method for providing an extensible macro language. The method comprises analyzing a macro language expression, determining based on a predetermined syntax of a macro language, one or more keywords in the analyzed macro language expression. The keyword represents an extended macro command, initially unknown to the macro language. The method additionally comprises retrieving an executable code

associated with the keyword from a registry of keywords. The registry of keywords is built dynamically to include the extended macro command. The process additionally comprises executing the executable code associated with the keyword. The extended macro command is executed without recompiling the macro language.

Aho et al., as understood by Applicants, is directed to a compiler for compiling computer code for execution. Aho et al. discloses preprocessors that may be used to compile macros. Since the entire disclosure of Aho et al. is premised on compiling code, it is simply not relevant to the claimed invention of the present application.

The Office Action cites Aho et al., page 183, first paragraph as allegedly teaching keywords representing an extended macro command, initially unknown to the macro language. This section of Aho et al. is directed to a predictive parser for a compiler. In predictive parsing, as understood by Applicants, a grammar must be defined via productions (that is, rules). These rules are applied when code is compiled.

Applicants submit that Aho et al. does not disclose or suggest, however, a method for providing an extensible macro language wherein a keyword represents an extended macro command, initially unknown to the macro language, and a registry of keywords is built dynamically to include the extended macro command.

Hyde, as understood by Applicants, is directed to tools for creating websites using a product known as WebHub.

It is contended in the Office Action that Hyde shows that "the extended macro command is executed without recompiling the macro language."

However, Hyde is not prior art to Applicants' invention. Hyde is a web page printed on March 31, 2000. This application was filed on October 16, 1999.

Brooks, as understood by Applicants, is directed to processors that can be used as programmable controllers for operating industrial equipment. The processors utilize a ladder logic control program that defines the operation of the equipment.

Canady, as understood by Applicants, is directed to tools for compiling computer programs written in a high level programming language. The computer programs may then be executed. Foreign expressions (expressions not conforming to the syntax of the high level programming language) are evaluated within the program.

Applicants do not find teaching or suggestion in the cited art, however, of a method for

providing an extensible macro language, wherein a keyword representing an extended macro command is initially unknown to the macro language, a registry of keywords is built (or updated) dynamically to include the extended macro command, and the extended macro command is executed without recompiling the macro language, as provided by the claimed invention of claim 1.
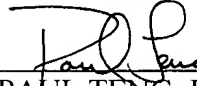
Independent claims 3, 5, 7, 8 and 9 are allowable for at least similar reasons.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition.

The Office is hereby authorized to charge any additional fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,

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